

claim 8 recites a "mobile communication control method." Therefore, the present title is consistent with the present claims and is believed to be descriptive of the present invention. If the present title is not sufficiently descriptive, then the Applicant respectfully requests that the Examiner further clarify why the title is not descriptive or, if possible, suggest a title believed to be sufficiently descriptive. Reconsideration of the objection is requested.

Paragraph 2 of the Official Action rejects claim 9 under 35 U.S.C. § 101 asserting that "it discloses 'A computer program' which is currently held to be non-statutory subject matter" (page 2, Paper No. 20080603). The Applicant respectfully disagrees and traverses the assertions in the Official Action. It has been long held that when a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim, particularly when the claimed invention produces a useful, tangible, and concrete result (see MPEP §§ 2106, 2106.01). Claim 9 is directed to statutory subject matter in that claim 9 is directed to a computer program for allowing access to a single directory information tree from a plurality of server apparatus, the computer program causing each of the plurality of server apparatuses to perform a sequence of processing, among other features. The Applicant respectfully submits that the invention described in claim 9 produces a useful, tangible, and concrete result, as described in detail in the present specification. Therefore, claim 9 is directed to statutory subject matter. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 101 are in order and respectfully requested.

Paragraph 4 of the Official Action rejects claims 1-9 as anticipated by U.S. Patent No. 5,550,896 to Chavez. The Applicant respectfully traverses the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a

single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application. Independent claim 1 recites A roaming system comprising: one or more controllers provided for each of zones that constitute a wireless network; and a server communicatively connected to the controllers in the zones, wherein each of the controllers comprises storage means that stores identification information given to wireless terminals for receiving a service, the wireless terminals being registered with the zone in which the controller resides, and each controller operates to detect the identification information on a wireless terminal from the storage means when a request for the service is received from the wireless terminal, and to provide the service to the wireless terminal if the identification information is detected or to issue a query for checking outside for the presence of the identification information if the identification information is not detected; and the server is adapted to maintain information indicating which controller in which zone stores the identification information on the wireless terminals, and the server operates to, on receiving the query, detect a controller that stores the identification information on the wireless terminal for which the identification information is not detected, to communicate with the detected controller to confirm the presence of the identification information on the wireless terminal which identification information is not detected, and to allow the controller that has issued the query to provide the service to the confirmed wireless terminal.

For example, regarding claim 1, in the present invention's roaming system, identification information given to each of a plurality of wireless terminals in the wireless network is registered in a controller in its home zone to which each wireless terminal belongs. In other words, each of the controllers has the identification information for only the wireless terminals belonging to the zone in which that controller resides and each controller does not have the identification information on all the wireless terminals

in the wireless network. In such circumstances, if a certain wireless terminal is located in its home zone, the identification information for the certain wireless terminal is immediately detected by the controller in the home zone, but if the certain wireless terminal is not located in its home zone but another zone, the identification information for the certain wireless terminal cannot be detected by a controller residing in the other zone, in which the identification information for the certain wireless terminal is not registered. In such a case, the controller in the other zone operates to issue a query to the server to confirm the controller in which the zone registers the identification information for the certain wireless terminal, and the server receiving the query detects the controller in the home zone of the certain wireless terminal on the basis of a table listing the controllers in zones in order to confirm the presence of the identification information for the certain wireless terminal.

The present invention's roaming system configured in this manner brings specific technical advantages as described in the present specification, for example, at page 17, lines 7-16, as follows:

- (1) No extra system resources are required because each site has no identification information on the wireless terminals registered with other sites.
- (2) The portion assigned to the wireless terminals is not reduced because the identification information requires no site indication data.
- (3) Each site or each controller does not need to set a new roaming procedure.

For the reasons provided below, the Applicant respectfully submits that Chavez does not teach the above-referenced features of the present invention, either explicitly or inherently.

Without any detailed explanation to support the position, the Official Action generally asserts that Chavez teaches that "the server is adapted to maintain information indicating which controller in which zone stores the identification information on the wireless terminals ... (See column 4, lines 61-65)" (pages 3-4, Paper No.

20080603). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

Chavez does not disclose, either explicitly or inherently, the unique features as stated above in the present invention. Rather, Chavez discloses a distributed personal communication system. However, Chavez does not teach, either explicitly or inherently, for example, that a server is or should be adapted to maintain information indicating which controller in which zone stores identification information on wireless terminals, that is, for example, a server listing the correspondence between a plurality of different pieces of identification information for respective wireless terminals and a plurality of different controllers provided for each of zone, as required by the present invention.

For example, the network management system (NMS) 115 of Chavez might arguably be considered to correspond to a server. However, the NMS of Chavez does not maintain information indicating which controller in which zone stores the identification information on the wireless terminals. Rather, the NMS of Chavez only stores a terminal service profile (TSP), which is essentially different from information maintained by the server in the present invention, that is, for example, the information indicating the correspondence between the identification information for wireless terminals and the controllers in zones.

Furthermore, in the communication system of Chavez, the operations required in the present invention are not performed. For example, Chavez discloses the following at column 3, lines 6-33:

The switching nodes of FIG. 1 are arranged into a directory dialing plan, switching node hierarchy and authentication hierarchical structures. Assume that the resident switching node of PCS telephone 168 is switching node 108 and that the user of PCS telephone 168 leaves his/her home and travels to his/her office which for sake of an example is served by switching node 110 and registers on base station 127. As part of the registration procedure, PCS telephone 168 transmits its resident switching node number to switching node 110. Switching node 110 first checks if the authentication information for PCS telephone 168 is within the authentication hierarchical structure of which switching node 110 is part. If the authentication information is not found within the authentication

hierarchical structure, switching node 110 utilizes the resident switching node number to route through the switching node hierarchy to switching node 108 requesting the authentication information for PCS telephone 168. Switching node 108 transmits to switching node 110 the authentication information for PCS telephone 168 and marks in an internal table that PCS telephone 168 is presently registered on switching node 110. Switching node 110 stores the authentication information for PCS telephone 168 until PCS telephone 168 registers on another switching node other than switching node 108, or switching node 110 exceeds the amount space available for storing authentication information and determines that PCS telephone 168 has been used less than any other PCS telephone. ...

For example, the PCS telephone 168 of Chavez might arguably be considered to correspond to a certain wireless terminal, the resident switching node of Chavez might arguably be considered to correspond to a zone controller, the switching node 110 of Chavez might arguably be considered to correspond to a home zone controller, and the authentication information of Chavez might arguably be considered to correspond to identification information. However, according to Chavez, as described above, when the PCS telephone 168 moves from the resident switching node to the switching node 110, the switching node 110 checks whether the authentication information for the PCS telephone 168 is within the authentication structure associated with the switching node 110. If the authentication information is not found within the authentication structure, then the switching node 110 uses the resident switching node number to request the authentication information for the PCS telephone 168 to the switching node 108, and then the switching node 108 transmits the authentication information of PCS telephone 168 to the switching node 110 in which the transmitted authentication information is in turn stored.

Thus, in the system of Chavez, the resident switching node number is transmitted from the resident switching node to another switching node (to which the PCS telephone is moved) and the authentication information for the PCS telephone is stored in the other switching node. By contrast, in the present invention's system, the number of a home zone controller is not transmitted to another zone controller, and the

identification information for a wireless terminal is not stored in the other zone controller. In the present invention's system, the server plays an important role, that is, for example, the server receives a query issued from another zone controller (in which a wireless terminal is presently located) and detects the home zone controller to confirm the presence of the identification information for the wireless terminal, thereby allowing the other zone controller to provide service to the wireless terminal.

Therefore, the Applicant respectfully submits that Chavez does not teach all the features of the roaming system recited in claim 1, either explicitly or inherently.

Independent claim 4 recites a mobile communication system that allows access to a single directory information tree from a plurality of directory servers corresponding to a plurality of sites in a mobile communication network, and comprises a plurality of authentication controllers provided in the respective sites for authenticating mobile communication terminals that request a service at each site; wherein each of the plurality of servers comprises: storage means that stores identification information given to mobile communication terminals for receiving a service, the mobile communication terminals being registered with the site corresponding to the directory server; identification information detection means that detects, from the storage means, the identification information on a mobile communication terminal specified in the search request from the authentication controller or in the search request redirected from a directory server corresponding to another site, among other features.

Independent claim 6 recites a mobile communication system that allows access to a single directory information tree having a hierarchical tree structure from a plurality of server apparatus, and service provision control means that allows provision of the service to the mobile communication terminal when the identification information on the mobile communication terminal is detected in the other server apparatus to which the search request has been transmitted by the search request transmission means, or in the identification information detection means, and that prohibits provision of the service to the mobile communication terminal when no other server apparatus is located above

or below in the directory information tree or when the identification information on the mobile communication terminal is not detected in the other server apparatus to which the search request has been transmitted by the search request transmission means, among other features.

Independent claim 8 recites mobile communication control method that allows access to a single directory information tree from a plurality of server apparatus; a service provision permission step for allowing provision of the service to the mobile communication terminal when the identification information on the mobile communication terminal is detected in the other server apparatus to which the search request has been transmitted at the search request transmission step or detected at the identification information detection step; and a service provision prohibition step for prohibiting provision of the service to the mobile communication terminal when no other server apparatus is located above or below in the directory information tree at the search request transmission step or when the identification information on the mobile communication terminal is not detected in the other server apparatus to which the search request has been transmitted at the search request transmission step, among other features.

Independent claim 9 recites a computer program for allowing access to a single directory information tree from a plurality of server apparatus, the computer program causing each of the plurality of server apparatuses to perform a sequence of processing; a service provision prohibition step for prohibiting provision of the service to the mobile communication terminal when no other server apparatus is located above or below in the directory information tree at the search request transmission step or when the identification information on the mobile communication terminal is not detected at the other server apparatus to which the search request has been transmitted at the search request transmission step, among other features.

The Applicant respectfully submits that Chavez does not teach at least the above-referenced features of independent claims 4, 6, 8 and 9, either explicitly or inherently.

Since Chavez does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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